

At The Royal Marsden we deal with cancer every day, so we understand how valuable life is. And when people entrust their lives to us, they deserve the very best. That's why the pursuit of excellence lies at the heart of everything we do and why The Royal Marsden Cancer Charity exists.

Thanks to our supporters, we continue to be there for everyone who needs us, raising money solely to support the hospital. We ensure that the nurses, doctors and research teams can provide the very best care and develop life-saving treatments, which are used across the UK and around the world.

From funding state-of-the-art equipment and groundbreaking research to creating the very best patient environments, we will never stop looking for ways to improve the lives of people affected by cancer.

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A message from our Chairman and Managing Director

Another outstanding year

This year, we have much to be proud of at The Royal Marsden Cancer Charity. We have had our best ever year, raising £36.1 million from donations and legacies. This has enabled us to continue to support the world-leading work of The Royal Marsden for the benefit of cancer patients everywhere.



Charles Alexander

Chairman
The Royal Marsden Cancer Charity



Antonia Dalmahoy
Managing Director
The Royal Marsden Cancer Charity

We would like to thank all our donors, our wonderful team of volunteers, and all our staff at the Charity, without whom we simply could not have achieved the successes outlined in this report. Your support has given new hope to cancer patients – not just at The Royal Marsden, but across the UK and all over the world.

Donations supported The Royal Marsden in becoming the first hospital in the UK to use the MR Linac – the only technology in the world which combines an MRI scanner with a linear accelerator – giving clinicians a clear and constant image of the tumour during radiotherapy.

And thanks to a very generous donation of £1 million from the Denise Coates Foundation the Molecular Diagnostics team at The Royal Marsden was able to invest in the latest DNA sequencing machine, the NovaSeq 6000 – advanced technology that can sequence six trillion bases of DNA in a single run, while simultaneously searching for cancer-causing mutations. This powerful machine is changing the landscape of cancer care, providing new ways to diagnose cancer earlier and enabling the development of new personalised treatments.

We have also continued to support
The Royal Marsden's exceptional work with young cancer patients. This year, through a £3.2 million five-year grant, the Charity continued to fund the work of the world-leading Oak Paediatric and Adolescent Drug Development Unit (OPDDU). The addition of new research posts funded by this grant will enable the development of breakthrough drugs and treatments for children with cancer. Together, we are making an invaluable difference to the lives of our country's youngest and most vulnerable patients – as well as for children with cancer all over the world.

Looking ahead, the exciting new Oak Cancer Centre, named in recognition of our largest ever donation of £25 million from Oak Foundation, will transform how cancer patients are cared for. We have already raised £52 million towards our £70 million target, and the building is on track to open in 2022.

These are just some of the highlights from the past year. We are immensely grateful to everyone who has supported us. Because of your generous support, the staff at The Royal Marsden have continued to change the lives of thousands of people with cancer.

Thank you so much.







(1) Barry Dolling, the first patient treated on the MR Linac (2) The new NovaSeq 6000 machine in the Centre for Molecular Pathology (3) OPDDU patient William Blake chats to a nurse in the Oak Centre for Children and Young People

Our inspirational supporters

Making a difference

We are very grateful for the overwhelming generosity, passion and commitment of our supporters – you make an enormous difference to the lives of thousands of people affected by cancer.

Whether you volunteered for us, took part in an event or made a donation your support is vital to ensuring cancer patients everywhere can benefit from the very latest research, treatment and care. Thank you so much to everyone who has supported us over the last year.

A giant pledge to beat childhood cancer

In 2017, Vicki and James 'Woody' Woodall created George and the Giant Pledge to help The Royal Marsden Cancer Charity support The Royal Marsden beat childhood cancer after their son, George, was diagnosed with a rare form of cancer at the age of four.

Their goal was to reach £1 million, and they have smashed that target in the two years since George was diagnosed, with fundraising now standing at £1.4 million.

Vicki said: "It's been amazing to have so much support from everyone to help us raise this astonishing amount of money."

Funds raised by George and the Giant Pledge are supporting a range of posts and research work in the Oak Centre for Children and Young People including in the Oak Drug Development Unit so that The Royal Marsden can run more trials in children's cancer.

Dr Lynley Marshall, Oak Foundation Consultant in Paediatric and Adolescent Oncology Drug Development, said: "We are immensely grateful to Vicki and Woody for dedicating their time to raise money for us. They are absolutely inspirational."



George Woodall (left), with his older brother, Alex (right)

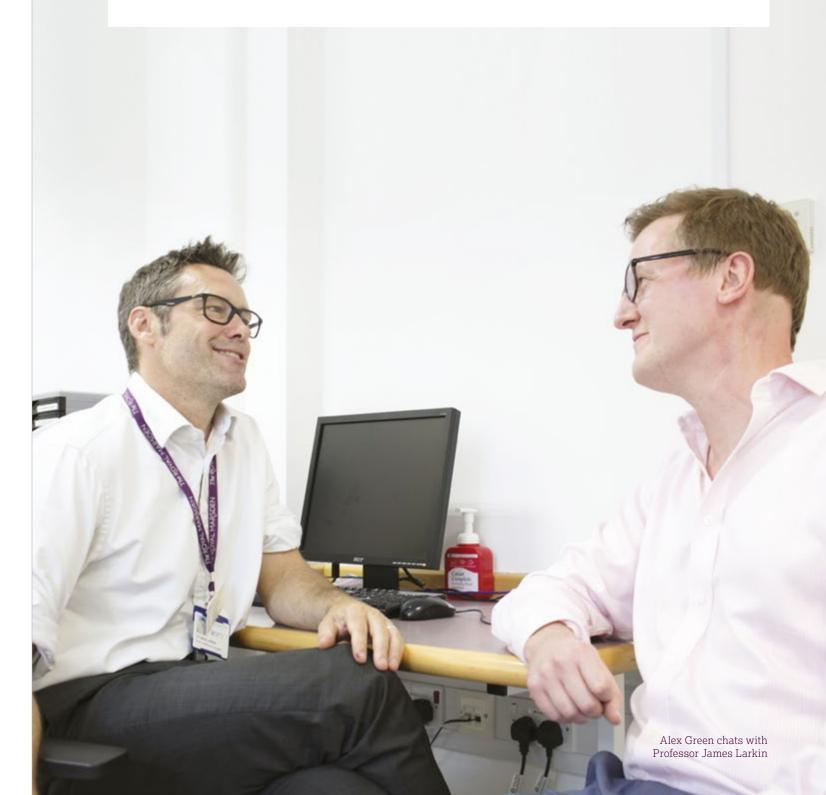
Macfarlanes' Charity of the Year

In 2018/19 London-based law firm Macfarlanes chose us as their Charity of the Year. Inspired by one of their partners, Alex Green, they are supporting the latest immunotherapy research at The Royal Marsden led by Professor James Larkin and Dr Samra Turajlic.

Macfarlanes' support will help clinicians better understand why some cancers respond to immunotherapy, and identify

which patients will benefit from it the most. This groundbreaking research could lead to new advances in cancer treatment, and more personalised, targeted care for patients.

Alex, who underwent life-saving immunotherapy treatment at The Royal Marsden, said: "The treatment and care I've received at The Royal Marsden has been superb, and I'm really pleased everyone at Macfarlanes came together and chose The Royal Marsden Cancer Charity as our Charity of the Year. It means so much to me, and everyone here, to be able to give something back to this incredible place."



A royal thank you for our supporters

The Royal Marsden Cancer Charity launched its most ambitious appeal to date in November 2015 - to raise £70 million to build a brand-new cancer facility, the Oak Cancer Centre. A star-studded dinner was held at Buckingham Palace in summer 2018, to celebrate the success so far of the appeal, and also recognise the innovative work of The Royal Marsden and The Royal Marsden Cancer Charity.

The event at Buckingham Palace, in the company of our President HRH The Duke of Cambridge celebrated reaching the halfway mark of the appeal. The total raised so far includes a generous gift of £25 million from Oak Foundation, a long-term supporter of the Charity.

The Duke was joined at the dinner, held in the Palace's Picture Gallery, by Chief Executive Cally Palmer CBE, Chairman Charles Alexander, and valued supporters of the Charity.

Appeal Board Chairman Mike Slade, actors Olivia Colman and Tom Hiddleston, and tennis star Grigor Dimitrov were also in attendance as were Oak Cancer Centre Appeal Board members Roger Orf and Andrew Fisher who generously funded the evening.

Kylie Minogue kicked off the event with a stunning musical performance. She said: "It was my absolute pleasure to perform at Buckingham Palace in support of The Royal Marsden Cancer Charity. The pioneering work undertaken by The Royal Marsden helps people with cancer everywhere and I, for one, am very grateful for their amazing work."

To finish the evening, Jake Coates, widower of Royal Marsden patient Emmy Coates and supporter of the Charity, spoke about the importance of early diagnosis for cancer treatment and how the new Oak Cancer Centre will improve this.

The Duke told the assembled guests: "The people who will benefit from the Oak Cancer Centre are cancer patients. Not only those who come through the doors of The Royal Marsden, but cancer patients across the UK and around the world."







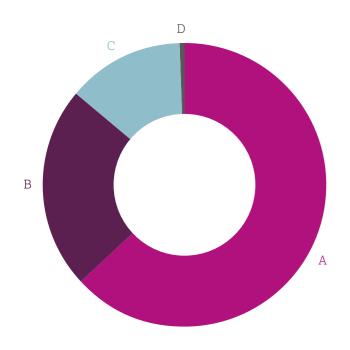
(1) HRH The Duke of Cambridge meets Jette and Alan Parker of Oak Foundation, along with their grandchildren Benedikte and Chloe Turner (2) Kylie Minogue sings in the Ballroom at Buckingham Palace (3) HRH The Duke of Cambridge chats with actor Olivia Colman and her husband, writer Ed Sinclair, and actor Siobhan Hewlett

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Financial highlights

Together, we raised £36.1 million from donations, legacies and trading in 2018/19. Thank you to all our inspirational and generous supporters who made this possible and ensured we could continue to support the groundbreaking work of The Royal Marsden for the benefit of patients across the UK and around the world.

What we raised



- A. Individuals, trusts and corporates £23.4m
- B. Legacies £8.3m
- C. Community £4m
- D. Trading £0.3m

Total income

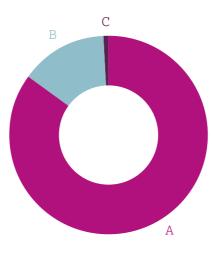
Voluntary income £36.1m Investment income £0.9m Other £0.3m

Other **20.511**

Total £37.3m

Income significantly rose this year, in part as a result of our £70 million appeal to fund the new Oak Cancer Centre. Income received this year for this appeal will be spent in installments over the next three years, and reflected in the expenditure for those years, as the building of the new centre starts.

How we spent your money



Total expenditure

- A. Charitable support of the hospital £26.7m
- B. Raising funds £4.5m
- C. Investment and property management £0.2m

Total £31.4m

Money raised by our supporters means The Royal Marsden can make a vital difference to the lives of cancer patients. Here's where we spent that money in 2018/19:



Research £3m



Equipment £7.1m



Treatment and care £8.3m



Patient environments £8.3m



Pioneering excellence to help more cancer patients



(1) Patient Bryony Faasen in the play room at the Oak Centre for Children and Young People, with her brother Kale (2) A scientist at work in the Ralph Lauren Centre for Breast Cancer Research (3) A radiographer in the Reuben Foundation Imaging Centre (4) A patient receives treatment in the West Wing Clinical Research Centre (5) A play specialist with one of our young patients

At The Royal Marsden Cancer Charity, we are always looking for new wavs to improve the lives of cancer patients and their loved ones. That's why we support The Royal Marsden across four vital areas of research, equipment, treatment and care, and patient environments. This support not only benefits patients at The Royal Marsden, but improves the lives of all cancer patients.



Life-saving research

Cancer is a complex disease with hundreds of variations and an ability to adapt and evolve, so it is essential that we continue to fund the latest, innovative research.

The Royal Marsden's clinical trials lead to breakthroughs that translate into huge benefits for cancer patients everywhere.



World-leading treatment and care

The Royal Marsden always puts the patient at the heart of its work, supporting them at every stage of their cancer journey. Whether it's physical, emotional or psychological support, The Royal Marsden's leading experts support patients to ensure their treatment and care, and their quality of life, is of the very highest standard.



State-of-the-art equipment

Every day patients at The Royal Marsden and across the UK receive groundbreaking treatment due to the latest equipment pioneered by The Royal Marsden's researchers and clinicians. It is vital that we fund this life-saving technology.



Modern patient environments

We understand the importance of a welcoming, calm and reassuring environment to patient recovery and wellbeing, and our support funds bright, modern environments at The Royal Marsden, helping patients and their families at a time when they need it the most.

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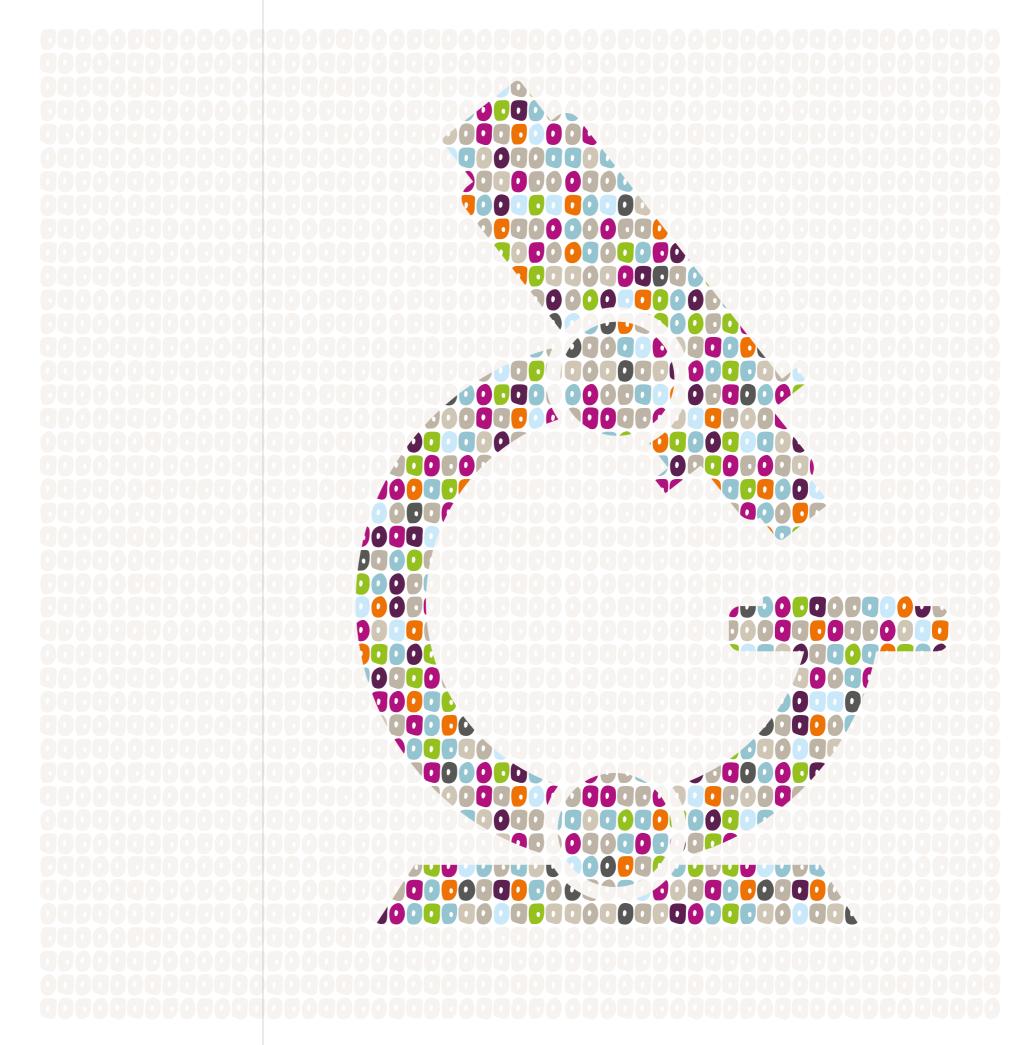
Pioneering breakthroughs to change the lives of cancer patients everywhere

Groundbreaking research revolutionises cancer treatment and care, extending and improving the lives of cancer patients everywhere. We're committed to helping The Royal Marsden run clinical trials that save lives, and give cancer patients the very best personalised treatment.

Within our £15 million five-year research grant, we are funding a consultant in early cancer diagnosis, dedicated to ensuring more lives are saved by diagnosing cancer sooner.

Thanks to our supporters, including a generous grant from Oak Foundation, we continue to support The Royal Marsden's Oak Paediatric and Adolescent Drug Development Unit (OPDDU). The OPDDU improves cancer survival rates in children by driving forward drug development and giving these young patients access to the latest innovative treatments.

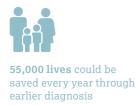
In 2018, the first patient in the UK was treated on the revolutionary Magnetic Resonance Linear Accelerator (MR Linac) machine, which delivers radiation far more accurately and effectively than ever before. The installation of the MR Linac was made possible by a £10 million grant from the Medical Research Council to The Institute of Cancer Research, with additional support from The Royal Marsden Cancer Charity.



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Pioneering breakthroughs to change the lives of cancer patients everywhere

Diagnosing cancer sooner



At The Royal Marsden Cancer Charity, we know that early cancer diagnosis is vital and saves thousands of lives each year. That's why we're funding a specialist post dedicated to championing early cancer diagnosis. Dr Richard Lee joined The Royal Marsden in 2018 as a Consultant in Early Diagnosis.



The NHS estimates 55,000 lives could be saved every year by diagnosing more cancers early. When it's caught sooner, there is a much greater chance of being able to treat it successfully, with less invasive procedures and fewer long-term side effects.

Working across all tumour types, Dr Lee is researching how clinical practice can be improved to better address the issues preventing early diagnosis.

In addition to his own research, Dr Lee and his team are also driving a range of initiatives to help healthcare professionals tackle these issues.

These initiatives have included work with NHS Trusts to carry out 'lung health checks' and low dose CT scans for people at risk of developing lung cancer, to providing easier access to clinics to increase the uptake of cervical screening, and teaming up with GPs to speed up the time between diagnosis and treatment for patients with symptoms of colorectal cancer.

Dr Lee says: "It's important that we engage with our patients and GP colleagues, supporting them to spot the signs of cancer through our education events and online learning resources. With our combined expertise in research, diagnosis and treatment we aim to make a difference to people's lives across the UK.

"When cancer is caught sooner, we have a much greater chance of being able to treat it successfully, often with less-invasive procedures and fewer long-term side effects.

"It's not just detecting the cancer that's important. At this stage, if we can accurately identify the genetic make-up of an individual's tumour, we can start moving to the most effective treatment personalised for that patient."

Pioneering breakthroughs to change the lives of cancer patients everywhere

Life-saving treatments for children

The Royal Marsden's Oak Paediatric and Adolescent Drug Development Unit (OPDDU) is one of the largest and most successful research programmes in the world. Thanks to our supporters, including a generous grant from Oak Foundation, we have been funding the OPDDU for the last 15 years.



The number of Phase I and II drug trials available for children and adolescents has increased from just seven in 2009 to 23 in 2016, with 19 now open to recruitment

In the UK, 10 young people are diagnosed with cancer every day, making it the main disease-related cause of death in children in the developed world. Some childhood cancers remain very difficult to treat, and for those who do survive, the long-term side effects of their treatment can result in infertility, vital organ impairment, or physical disabilities.

Researchers at the OPDDU are world leaders in developing revolutionary drugs and personalised treatments for children and young people, helping to reduce side effects and improve cancer survival. Thanks to a £3.2 million, five-year grant awarded in May 2017, The Royal Marsden Cancer Charity has funded a number of posts at the unit throughout 2018/19, who are carrying out this latest research.

Together with The Royal Marsden's academic partner. The Institute of Cancer Research, the OPDDU team are leading on a new initiative which will enable them to respond to the exciting opportunities to explore precision medicine and immunotherapy approaches in children. This will give new treatment options for children and young people with cancer across the UK.

Dr Lynley Marshall, Oak Foundation Consultant in Paediatric and Adolescent Oncology Drug Development, says: "We have a highly committed team who go to great lengths to provide the best possible clinical care, while offering the most promising new treatment options for our young patients. Our centre has contributed to the development of new drugs which are having a life-changing impact on patients and their families."



Pioneering breakthroughs to change the lives of cancer patients everywhere

Radiotherapy of the future

In September 2018, the first patient in the UK was treated at The Royal Marsden on the new MR Linac, a revolutionary machine which delivers radiation far more accurately and effectively than ever before. With its ability to target tumours with radiation beams in real time, the MR Linac is particularly effective for treating moving tumours – such as those in the prostate, lungs, bladder and bowel – and for tumours that are difficult to distinguish from healthy tissue, such as liver and pancreatic cancers.



The Royal Marsden and ICR are part of an international consortium of seven globally renowned cancer centres developing the MR Linac technology The MR Linac is the first technology in the world to generate magnetic resonance images (MRI) while simultaneously delivering X-ray radiation beams. Because doctors can see the patient's tumour while delivering radiation, they can safely deliver higher doses over a shorter period of time, and are far less likely to damage healthy tissue. For patients, this could mean fewer side effects and fewer hospital visits.

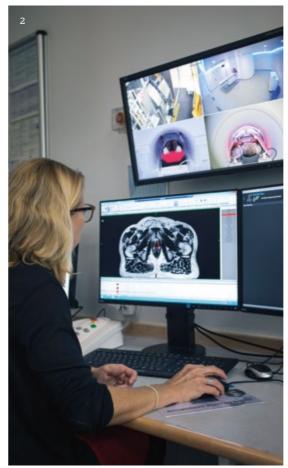
The MR Linac could also be crucial in the treatment of children and other vulnerable patients, where reducing their exposure to radiation is paramount.

In November 2016 The Royal Marsden became the first centre in the UK to install the machine. The installation of the MR Linac was made possible by a £10 million grant from the Medical Research Council to The Institute of Cancer Research, with additional support from The Royal Marsden Cancer Charity.

Following a period of complex testing, the first patient in the UK was treated as part of the PRISM clinical trial for prostate cancer in September 2018. Clinicians have since gone on to open trials in rectal cancer and bladder cancer, with pancreatic cancer trials to follow later this year. The team has also scanned the first paediatric patient in the country, in preparation for when they start treating children next year.

Dr Alison Tree, Consultant Clinical Oncologist, says: "The MR Linac is a dream come true. If you were going to design radiotherapy from scratch, this is how you would do it. To be able to see the patient's anatomy before you treat them and to be able to change where you put the dose and treat with such accuracy is incredible. It gives us the opportunity to realise our vision for radiotherapy of the future."







(1) A patient undergoes treatment on the MR Linac (2) Dr Alison Tree analyses a scan during treatment delivery (3) Alex Birchall, 12, is scanned – the first paediatric patient in the country to use the MR Linac

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Barry's story Patient



Barry Dolling, patient

"I was the first UK patient and third in the world to be treated with the MR Linac in September 2018. I was diagnosed with prostate cancer in April 2018 and was told about the PRISM clinical trial on the new MR Linac when I was referred to The Royal Marsden for radiotherapy. I jumped at the chance to sign onto the trial as I believed the treatment would give me a better quality of life and minimal side effects in comparison to other treatments.

"I had 20 treatments on the MR Linac and managed to keep up with my hobbies which include swimming and golf. It was important to me to have treatment that had minimal side effects as I am such an active person. I also managed to keep working as a driver throughout my treatment.

"It is also nice to know that my treatment will help research treatments for cancer patients in the future. I didn't know at first how big a deal it was to be the first patient but when I met all the people involved with getting the MR Linac ready for treatment it was quite something. I consider myself very lucky the timings worked out for me as the trial just opened at the time I would have been starting standard radiotherapy treatment. I feel very privileged.

"I was happy to consent for the media to cover my first treatment and could not believe how much coverage it received in the newspapers and on television. I had friends I had not been in touch with for a while calling me when they had spotted me in the media."



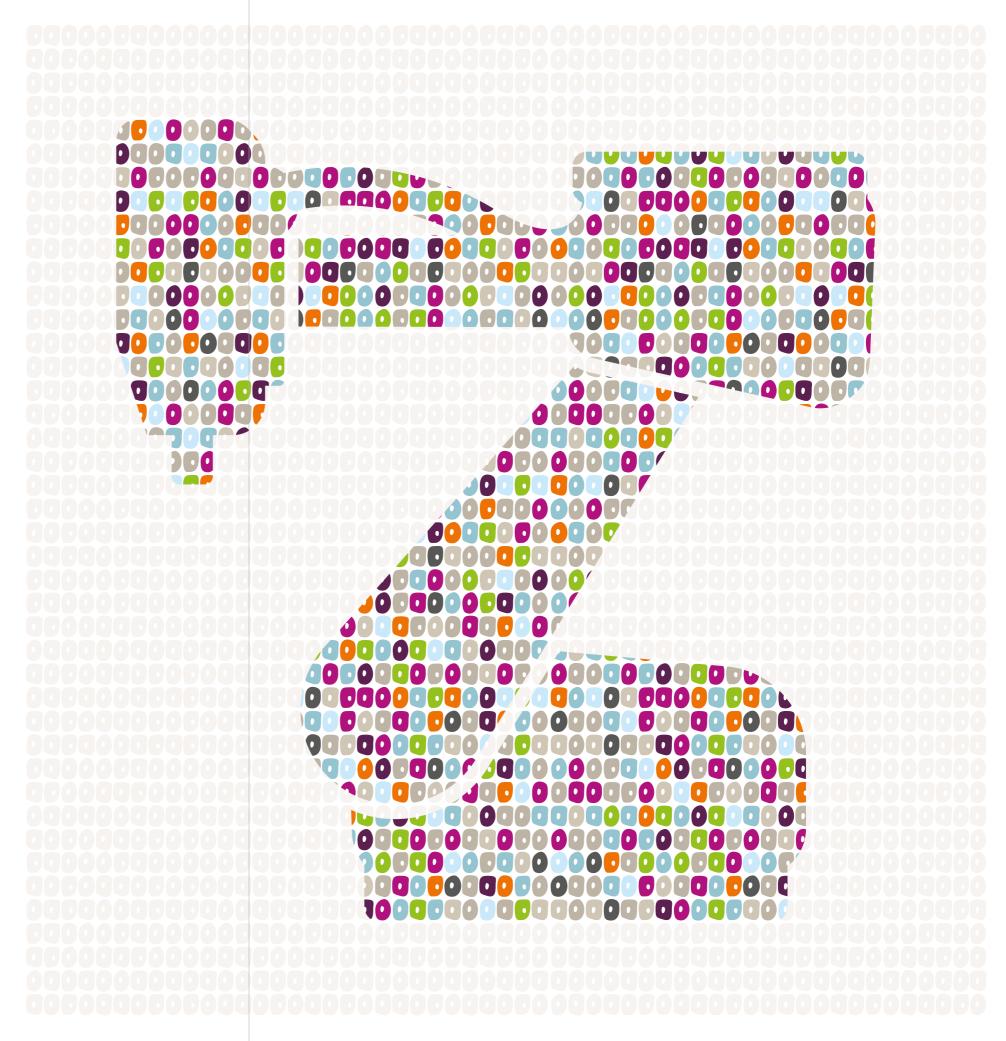
Equipment

Investing in technology that saves lives

The Royal Marsden is constantly striving to give cancer patients the best care possible. Our funding gives them access to state-of-the-art equipment, enabling new advances in cancer research and care that benefits cancer patients everywhere.

The NovaSeq 6000, the latest in DNA sequencing technology offers new ways to diagnose cancer earlier, and enables the development of treatment plans tailored to each patient.

In 2011, The Royal Marsden Cancer Charity funded a CyberKnife machine which can deliver radiation to patients with pinpoint accuracy, meaning less healthy tissue is damaged during treatment. Promising early results of the international PACE trial – which has been using CyberKnife to assess the benefits of different kinds of treatment for prostate cancer – give further hope to prostate cancer patients.



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All in the genes

The world-leading National Institute for Health Research (NIHR) Centre for Molecular Pathology (CMP) in Sutton is a joint facility between The Royal Marsden and The Institute of Cancer Research.



15,000 genomes were tested at The Royal Marsden in 2018

Differences in genetic mutations in a person's DNA means that patients with the same cancer can respond differently to the same treatment. Molecular diagnostics carried out at the CMP use specialist equipment to look for these genetic mutations so that clinicians can work out which patients could benefit from certain types of drugs or therapies. Treatment can then be tailored to suit the individual, rather than using a traditional one-size-fits all approach with chemotherapy.

Thanks to a generous donation of £1 million from the Denise Coates Foundation to The Royal Marsden Cancer Charity in 2018, The Royal Marsden was able to invest in the NovaSeg 6000 – DNA sequencing technology that makes this pioneering work possible. Whereas previously, only a handful of genes could be examined at a time, the NovaSeq 6000 can sequence six trillion bases of DNA in a single run, while simultaneously searching for cancer-causing variants in 200 genes from over 200 patients – all in less than a week. This huge increase in capacity offers new ways to diagnose cancer earlier and the development of new, personalised treatments.

Dr Mike Hubank leads a team of 10 scientists carrying out this life-changing work. Dr Hubank's work is funded by the Charity through a generous donation from Her Highness Sheikha Jawaher Bint Mohammed Al Oasimi of Sharjah.

Dr Hubank says: "We process the DNA from tissue biopsies and blood samples on state-of-the-art sequencing machines to find glitches that tell us which is the best drug for that patient. We work hard to find different ways to ensure that every patient's treatment can be tailored to achieve the best outcomes."



Improving blood cancer diagnosis and care

Thanks to the incredible support of our donors, we were able to fund a karyotype station at The Royal Marsden, helping clinicians and researchers continue their vital work in blood cancers.

The Royal Marsden's Haematooncology Unit is one of the largest in Europe, diagnosing, treating and researching blood cancers in adults and children. The unit runs up to 50 clinical trials at one time for patients with multiple myeloma, leukaemia and lymphoma, and performs more stem cell transplants than any other centre in the UK. In the past five years the way patients are treated has been transformed by advanced diagnosis, innovative scanning techniques and groundbreaking drug treatments.

In order to continue this vital work in haemato-oncology, readers of The Royal Marsden Cancer Charity's magazine, Progress, funded a new piece of equipment to ensure that scientists and clinicians can accurately diagnose a patient's cancer and give them the most targeted treatment for their disease.

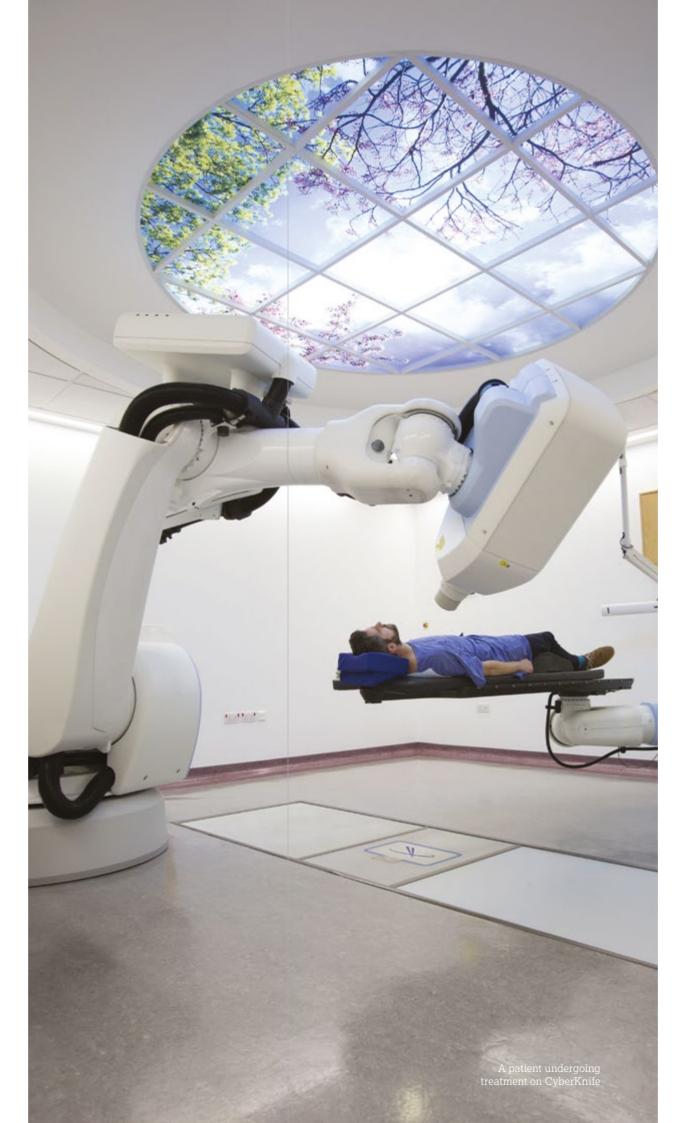
The karyotype station helps analyse chromosomes – strands of DNA that are encoded with genes – in the blood and bone marrow samples from patients diagnosed with blood cancers. It also allows scientists to look for changes on the chromosomes that give an indication of the type of leukaemia or lymphoma a patient has, as well as assess the results of the treatment the patient is receiving and how well they are responding.

CyberKnife: new hope for prostate cancer patients



for lung cancer could be reduced from 30 to three by using CyberKnife, and from 37 to five for prostate cancer

In 2011, The Royal Marsden Cancer Charity funded a CyberKnife machine at The Royal Marsden in Chelsea - one of the very first hospitals in the UK to offer patients treatment on this pioneering equipment. Using this technology, The Royal Marsden has been leading research into better treatment for prostate cancer patients.



CyberKnife is a robotic radiotherapy system that can deliver radiation to patients with pinpoint accuracy, meaning less healthy tissue is damaged during treatment. And because the radiotherapy is focused, the beams can be more intense than other treatments and so fewer sessions are needed. Treatment for lung cancer for instance, can be reduced from six weeks to just three days.

The CyberKnife's robotic arm can be positioned at almost any angle, so it's also ideal for treating hard-to-reach tumours, including brain, spinal, lung, neck and prostate cancers.

Since 2012, The Royal Marsden has been leading the international PACE trial into the benefits of using hypo-fractionated radiotherapy, including CyberKnife, compared with the current standard treatments of surgery and radiotherapy to treat prostate cancer – the most common form of male cancer in the UK. The trial reported promising early results this year.

Dr Nicholas van As, Medical Director at The Royal Marsden, and Chief Investigator of the PACE trial says: "We hope to show that CyberKnife can offer men with localised prostate cancer an equivalent, or even better, outcome compared with standard treatments.

"Early results of the trial are very encouraging, giving hope that prostate cancer patients can benefit from this technology with increased and improved treatment options. We look forward to continuing with the trial and analysing additional results as they become available." This next phase of the trial is being funded by The Royal Marsden Cancer Charity through aifts in Wills.

The Charity is also fundraising for a second CyberKnife for The Royal Marsden in Sutton which will enable even more patients to access this latest technology for radiotherapy treatment.

The new CyberKnife will also be the first machine in the world to include the ImagingRing system. 3D imaging will enable clinicians to have a much clearer view of areas of the body where other body parts are blocking a 2D view. This should result in more efficient and effective treatment planning, meaning more targeted treatment and shorter scanning times for patients.

Peter's story Patient

Peter Ketteringham, 77, was one of the first patients in the UK to be treated with CyberKnife at The Royal Marsden eight years ago. The retired engineer from Hampton was diagnosed with prostate cancer and had been offered a range of treatment options by his clinical team, including surgery and internal and external radiotherapy. He opted to try CyberKnife, which at the time was new to the UK.

He said: "CyberKnife seemed to offer the best balance between overall effectiveness and the minimisation of after-effects and to this day I feel I made the right decision.

"I've always been a great supporter of technological advances and felt that the opportunity outweighed the small risks. Obviously there was little UK data to compare it to conventional radiotherapy but, to me, it seemed logical that CyberKnife offered more accuracy for the radiation beam thus minimising any harmful effects of radiation to my surrounding healthy tissue.

"I calculated that, including my journey to and from the hospital, the total time taken up by my CyberKnife treatment was 15 hours in five sessions compared to more than 80 hours in 37 sessions with conventional radiation treatment programmes. This regime had the additional benefit of a significant reduction in the inevitable anxieties that accompany any serious hospital treatment.

"The real proof of the effectiveness of the treatment came when I received my PSA reading of less than 2ng/ml immediately after the treatment. It is below 0.2ng/ml now and I have remained well since.

"It is wonderful to see how successful CyberKnife has become since I was treated. I feel really proud to think that not only did my treatment help me but enabled the team to shape new treatments for other patients like me."



Treatment and careEnabling patients to have personalised treatment

The Royal Marsden always puts patients at the heart of its work, supporting them at every stage of their cancer journey. By funding the latest research and equipment, and world-leading professionals, we can ensure that each patient is given the very best treatment and care, supported not just physically, but emotionally and psychologically too.

Patients with blood cancers now have the freedom to receive treatment in the comfort of their own homes, thanks to 20 new 'chemo backpacks'. This gives them more control over their lives and ensures The Royal Marsden can care for even more cancer patients.

This year we also funded a new Robotic Nursing Fellowship to support The Royal Marsden's comprehensive programme of robotic surgery and drive forward advanced techniques in patient care.

We are also supporting The Royal Marsden's use of artificial intelligence to provide earlier diagnosis and treatments tailored to individual patients, through funding the latest MRI machines.



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Treatment and care

Enabling patients to have personalised treatment

Chemo in comfort

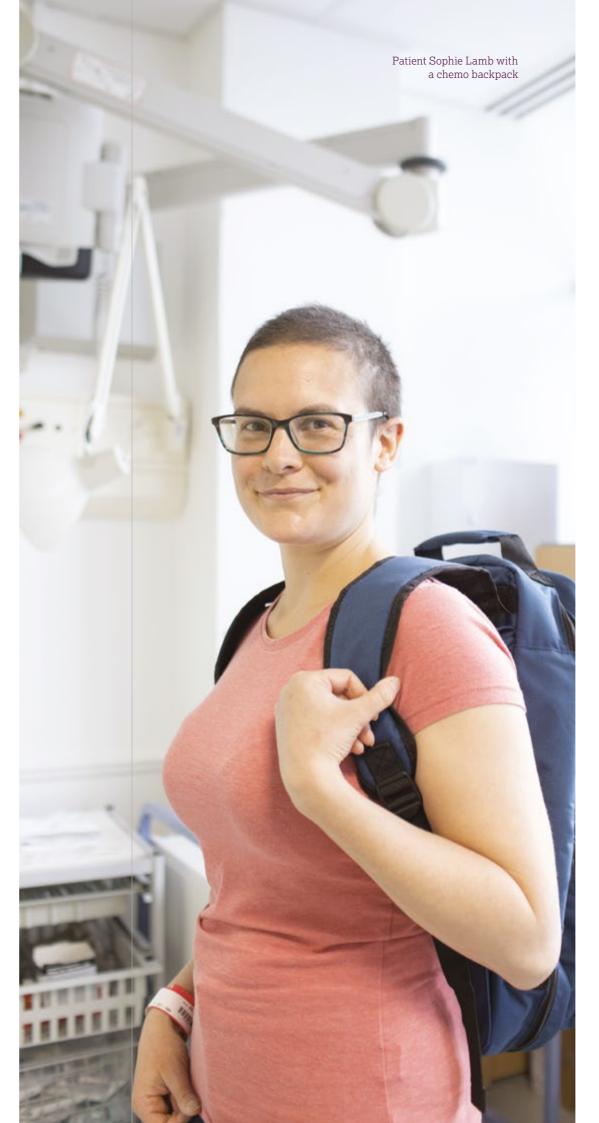
Patients with blood cancer have been given the freedom to receive treatment in the comfort of their own homes, thanks to the purchase of 20 new chemo backpacks funded by the Worshipful Company of Cordwainers.

The Royal Marsden performs more than 240 stem cell transplants every year, more than any other centre

Chemo backpacks are portable, chemotherapy-dispensing devices which are carried by blood cancer patients in specially designed rucksacks – or their own bag if they prefer. After staying as an inpatient for a month to check they don't experience an adverse reaction to treatment, the patient can then complete their treatment at home, rather than staying in the hospital, only having to visit the hospital once a day to change their medication.

Patients receiving bone marrow or stem cell transplants, and those with complex infections requiring ongoing treatment, can all also benefit from using the backpacks to complete their treatments at home.

As well as freeing up beds for cancer patients who are in urgent need of overnight hospital care, the backpacks also give patients who would otherwise spend long periods of time in hospital a restored feeling of independence and control over their lives. As Sam Wigfall, Matron of the Bud Flanagan Unit, explains: "Whether it's a young patient who wants to get out and see their friends, or a parent eager to get home to their children, the chemo backpacks give patients a sense of freedom and independence that cancer has taken away from them."



Leading the way in robotic cancer care

The inaugural trainee has started The Royal Marsden's Robotic Nursing Fellowship – the first hospital-based fellowship of its kind in the UK.

Marie Taniacao, Theatre Scrub Nurse and Surgical First Assistant, is currently The Royal Marsden's first Robotic Nurse Fellow. She is studying towards an MSc in Surgical Care Practice, specialising in gynaecological, upper gastrointestinal and colorectal surgery. This qualification will provide her with a deep knowledge and understanding of robotic surgery – comparable to that of a junior doctor – so she can better support and assist the surgeon.

Marie said: "I'm so excited to be the first Fellow in robotic nursing, and extremely grateful to The Royal Marsden Cancer Charity for funding the Fellowship.

"It will place me and all future trainees in a better position to ensure patient safety and a high standard of care during robotic surgery. We will be even more capable of attending to patients while the surgeon is operating on the da Vinci Xi."



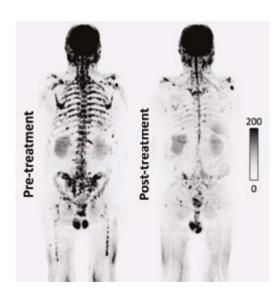
Marie Taniacao, the first Robotic Nurse Fellow

Treatment and care Enabling patients to have personalised treatment

Using AI to improve the lives of cancer patients



The Royal Marsden's work in artificial intelligence (AI) is harnessing the use of 'big data' to help diagnose cancer earlier and improve the quality of life for patients living with cancer.



An example scan image from a full body MRI pre and post treatment



The Royal Marsden is collaborating with Imperial College London on the MALIMAR trial, which aims to improve the treatment and care of patients with myeloma, a typically hard to diagnose cancer of the skeleton.

The trial, which opened at The Royal Marsden in June 2018, is using AI to read whole-body MRI scans in myeloma patients to find evidence of cancer. Whole-body MRI scans generate a huge amount of data so training a computer algorithm to read these images can quickly flag up sites of possible cancer, meaning doctors can get to work guicker on diagnosing and treating those patients.

Unlike CT scans, whole-body MRI scans can detect cancer in the bone marrow before it has caused destruction to the outer bone, meaning a diagnosis can be made much earlier. This is particularly important in myeloma because, as the disease progresses, it can result in irreparable bone damage, leading to debilitating complications.

Dr Christina Messiou, who is leading this work at The Royal Marsden and is part-funded by The Royal Marsden Cancer Charity, says: "Our vision is to provide an earlier diagnosis for patients and then tailor their treatment to them as an individual. This can only be achieved through rapidly accessing all relevant data for a patient and utilising smart analysis tools to support clinical decision-making."



Dr Messiou analyses a scan alongside a colleague



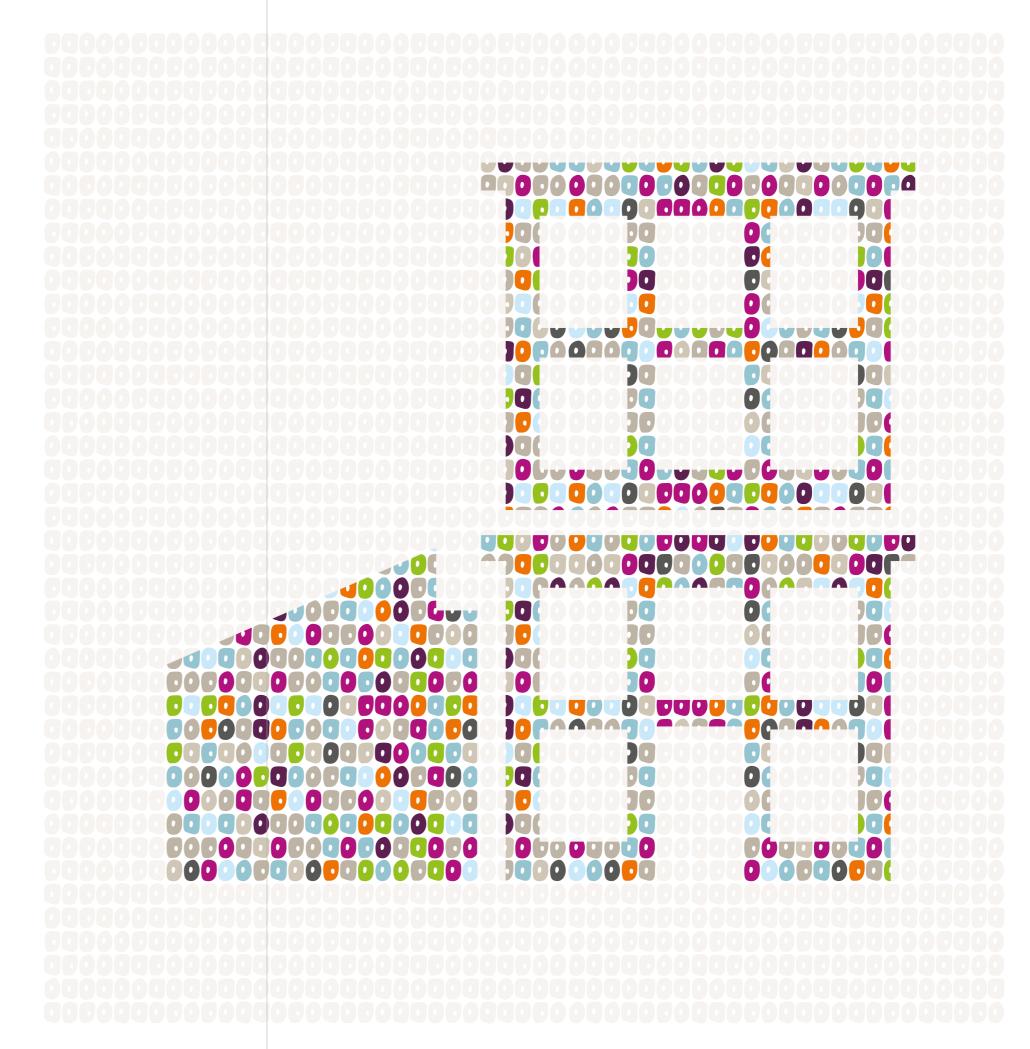
Patient environments

Funding the most appropriate environments for patients' recovery and wellbeing

The cancer journey can be uncertain and frightening, and we understand the profound effect a welcoming, dignified environment can have on a patient's experience – from the moment they are diagnosed through treatment and beyond. Your support ensures cancer patients, their friends and loved ones can have the best possible experience during this time.

Patient environments across The Royal Marsden are designed to be appropriate to the needs of the patient and their family and friends, including garden spaces for both adults and children which can provide opportunities to relax away from the clinical environment.

Our funding supported the leading Critical Care Unit at The Royal Marsden, a facility specially designed, equipped and staffed to offer exceptional care for critically ill cancer patients.



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Patient environments

Funding the most appropriate environments for patients' recovery and wellbeing

The art of wellbeing

Suitable outdoor space, particularly for young cancer patients, can provide opportunities for relaxation, enjoyment and spending time with family and friends away from a clinical environment. This year, two garden spaces were opened at the Oak Centre for Children and Young People.



The Courtyard Garden is perfect for young children

The Glade Garden was the brain child of Jackie Debonnaire whose daughter, Ella Grace, was treated at The Roval Marsden for leukaemia until she sadly died in October 2012. Funded by supporters of The Royal Marsden Cancer Charity together with generous contributions from garden and building suppliers, the garden provides a safe and peaceful space for children undergoing treatment to enjoy the outdoors.

"Children going through cancer treatment have very fragile immune systems and often cannot go outside and play like other children. For the best part of 11 months, while Ella was going through treatment, we felt trapped indoors – unable to let her go outside and play like a normal child. As a mum of a cancer patient and a garden designer, I knew that a specially designed space could bring so much pleasure to the children, as well as their families." said Jackie.

The Courtyard Garden also provides respite from the wards and somewhere for young people to play in a fun environment. Taking into account the varying needs of children in treatment, the concept for the space was created by renowned British designers, Hemingway Design, and was supported by Pandora UK and the Emily Ash Trust.



Alfie's story Patient

Alfie Bills was referred to The Royal Marsden after being diagnosed with acute lymphoblastic leukemia in May this year. The three-year-old spent the first month of his treatment as an inpatient in the Oak Centre for Children and Young People (OCCYP) and now comes in regularly from his home in Kent as an outpatient.

His mum Jenny said: "The OCCYP has so much to keep children occupied during their treatment. Alfie is on a three-year course of treatment and even though it is intense he doesn't mind coming to the centre and rushes in to see what is going on that day. He loves the play room and tottering around in the centre's gardens. He adores being outdoors so being able to let him run around outside while waiting for treatment to start or to see the doctor is just lovely. His mobility has come on so much in the past few weeks so being able to move around really does keep him happy.

"In the first month he spent more time indoors but, again, there was so much to occupy him from biscuit decorating to puppet making. If he wasn't well enough, the staff would bring everything into his room so he didn't miss out.

"I really appreciate how much effort is put in to activities and making the surroundings appealing to children because it really helps them forget about their treatment for a short while. As a parent it is naturally really difficult to see your child unwell, so any opportunity to see them running around in a garden within the safety net of a hospital is just wonderful."

Alfie Bills, leukemia patient

Patient environments

Funding the most appropriate environments for patients' recovery and wellbeing

Leading-edge critical care

The Royal Marsden's Critical Care Unit (CCU) in Chelsea is the largest facility of its kind dedicated to cancer patients in the UK. and one of the biggest in Europe. The unit is specially staffed, equipped and designed to offer the very best in intensive care for cancer patients.



Patient Marc Humphries receiving treatment in the Critical Care Unit

The CCU specialises in offering round-the-clock care for critically unwell patients, most of whom are recovering from complex surgery. The team also offers highly specialised care to patients suffering from bone marrow failure as a result of chemotherapy or bone marrow transplants.

Staff at the CCU include consultants, junior doctors, nurses and healthcare assistants – but there is also a wider, multidisciplinary team including physiotherapists, speech and language therapists, complementary therapists, and a dietitian. This places the unit in a unique position to offer personalised care to cancer patients, improving their recovery time and minimising side effects.

Following a fire in 2008 that damaged the original CCU, we funded the refurbishment of the unit, doubling its previous capacity for complex post-operative care. Designed to optimise the patients' experience and recovery, it has seven isolation rooms, including two dedicated teenage and young adult bays.

"Survival rates for our patients are excellent, some of the best in the country, and we are currently involved in a number of multi-centre trials as part of the wider research network specifically for intensive care." says Dr Pascale Gruber, Consultant in Critical Care and Clinical Director for Surgery and Inpatients. "These trials are focused on improving outcomes for cancer patients in critical care and facilitating early recovery from major cancer surgery. We have an increasing number of referrals from other centres for patients to get specialist treatment in our state-of-the-art unit. We tailor our medical care not only around the clinical needs of our patients but also based on their psychological needs, offering extra pastoral care including massage and music therapy to improve their wellbeing and recovery time."



Joe's story Patient

74-year-old Joe Monks, from Leeds, was diagnosed with colon cancer at The Royal Marsden in 2016, following a colonoscopy procedure in Sutton.

Following surgery to remove the tumour in his colon, he underwent further treatment at The Royal Marsden for around three months.

"I was having chemotherapy and radiotherapy every day which was often really painful. I was in the Army for 35 years when I was younger and did eight years active service where I didn't even break a fingernail; I've been more poorly in the last few years than I ever have been."

After being clear for 12 months, a routine blood test at the end of 2018 showed tumour markers in Joe's results and he was told that he had two lesions on his liver which would need to be removed. He recently underwent robotic surgery, a minimally invasive approach using robotic surgical technology, to remove the lesions, and spent time on the Critical Care Unit following the procedure while he recovered.

"I've had a number of surgeries now but always seem to recover so quickly – I think it's thanks to the brilliant care at The Royal Marsden along with all those years in the Army which toughened me up!

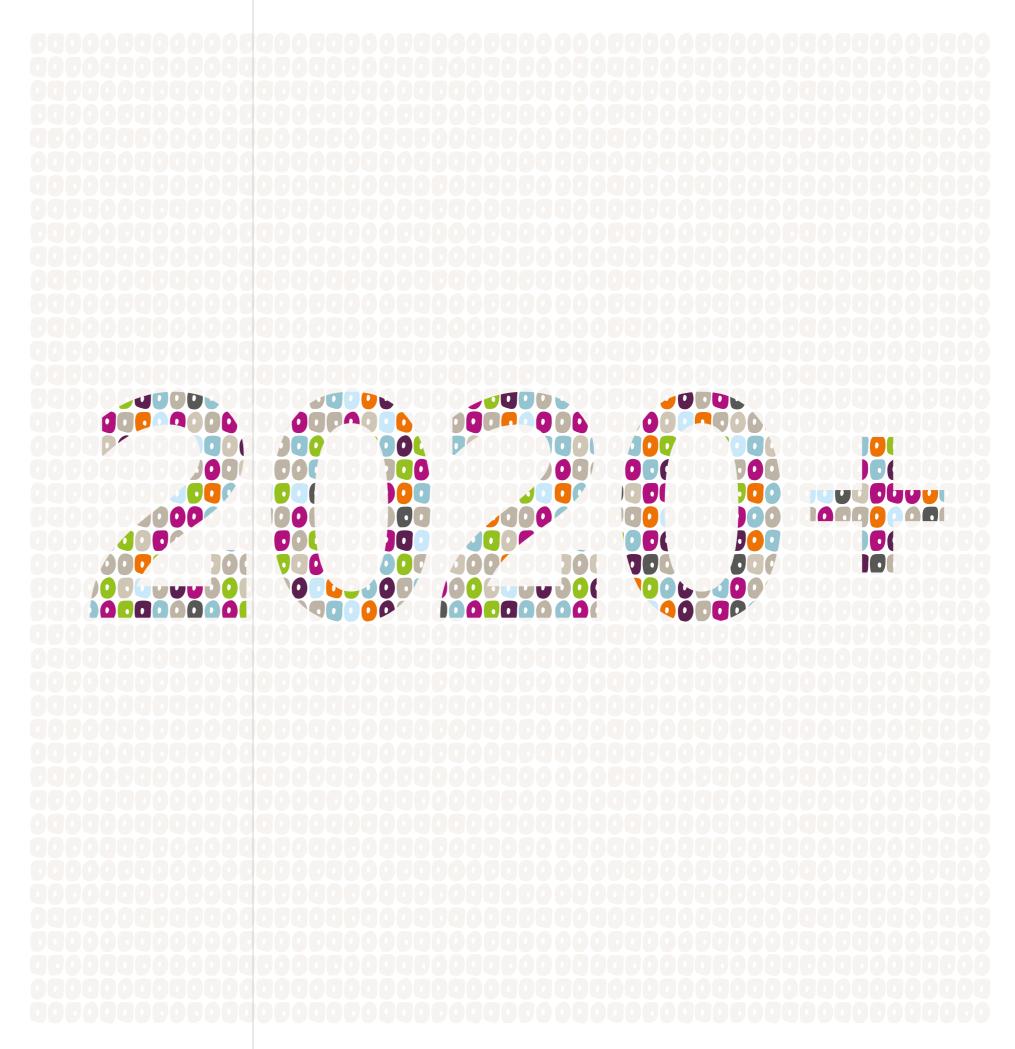
"If you have to be in any hospital in the world, you want to be here. There isn't one person I can fault throughout all my treatment; all the staff have been absolutely wonderful."

The Critical Care Unit at The Royal Marsden cares for more than 1,400 patients a year

Looking ahead

Our plans for a better future

The staff at The Royal Marsden are constantly striving to achieve more, to provide more effective treatments for patients, improving their survival and their quality of life. Over the coming year, we will continue to support the hospital to take new strides in pioneering the very best in cancer research and developing the latest treatments to improve the lives of cancer patients everywhere.



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Thanks to our supporters, we have now raised £52 million in donations and pledges towards our £70 million target. We are incredibly grateful to everyone who has supported the Oak Cancer Centre appeal to date.

Fundraising for the exciting new Oak Cancer Centre (OCC), set to open in 2022, is well underway. Named in recognition of our biggest ever single donation of £25 million from Oak Foundation, the centre will speed up the translation of world-leading research into breakthroughs in patient treatment and care, and vastly improve patient facilities, transforming the lives of cancer patients at The Royal Marsden and beyond. There are four main goals for the centre...

1. A hub for innovation and discovery

For the first time, over 400 of the hospital's world-leading clinical researchers will work in the same building as their patients. Clinical research teams, who are currently spread out around the hospital site, will work together in purpose-built spaces, in the Kuok Group Foundation Research Centre. that encourage collaboration across different tumour specialties, sharing the latest learnings and innovations with other research colleagues. This will help speed up the development of new clinical trials, driving advances in treatments for many different cancers.

2. Earlier diagnosis for more cancers

We know that diagnosing cancer at an early stage saves lives. The new Charles Wolfson Rapid Diagnostic Centre, housed within the OCC, will not only help more people receive an early diagnosis, but will help researchers find new and faster ways to identify the disease. In addition, a new Endoscopy Unit, the first unit of its kind on the Sutton site, will be equipped to diagnose gastrointestinal cancers and carry out treatment for patients who've been referred by their GPs with potential symptoms of cancer.

3. There for every person who needs us

Cancer incidence is increasing, but the new OCC will grow clinical capacity by at least 40%. This will enable The Royal Marsden to see thousands more patients every year, giving more patients access to our clinical trials programme and the newest treatment options. It will also allow for a more streamlined model of care, enabling our clinical teams to treat an increased number of patients in a more efficient and effective way.

4. The best possible patient environment

We know that a patient's experience in hospital plays an important role in their wellbeing and contributes towards positive treatment outcomes. The contemporary design will create a bright, modern patient environment, supporting patients' dignity and privacy at a time when they are likely to be feeling afraid and vulnerable. At the same time, the building will be designed to support efficiency for our staff, to improve communication, productivity and team working.

Unlocking innovation

The 'Innovation Den' is an exciting new Royal Marsden **Cancer Charity** funded initiative which taps into the creativity and ingenuity of hospital staff, and seeks to improve the care and experience of cancer patients.

In early 2019, Royal Marsden staff were invited to apply for an award of between £5,000 and £60,000 to fund a project that aimed to improve the quality of patients' experience at The Royal Marsden.

In March, after an initial application process, shortlisted applicants pitched their idea to a panel – the 'Den' – who selected four projects to receive funding.

Eamonn Sullivan, Chief Nurse, who chaired the Den session, said there was stiff competition: "We had over 26 applications, of which we shortlisted nine to pitch to the Den. It was an incredibly hard decision to choose the winning entries, they were all of such high quality. All the ideas were fantastic, with incredible potential and benefit for our patients. I look forward to seeing how the successful teams take these ideas forward."

The four projects which were chosen to receive funding were:

- Work to improve the engagement with breast cancer patients on the long term effects of treatment, to improve aesthetic outcomes for patients and psychosocial well-being
- Development of an app for viewing and downloading clinical guidelines to ensure staff have access to the most up-to-date information quickly and easily to further increase the efficiency of patient treatment
- Production of short patient films to explain a range of procedures so patients can visually understand their upcoming treatment
- A new technique to deliver radiotherapy using 3D printing technology reducing the time spent in radiotherapy by patients.



Safety, innovation and patient experience grant

At The Royal Marsden Cancer Charity, we are constantly looking for new ways to improve patients' experience and safety. Through our funding, The Royal Marsden has been able to run projects across the hospital, supporting patients at every stage of their cancer journey.

A new grant of £2.7 million will focus on funding extra services and initiatives to ensure expertise and quality research for the future. This will enable the safest practice and ensure patients' experience at The Royal Marsden is as comfortable and positive as it possibly can be.

One of the initiatives funded will support a Pre-Doctoral Fellowship programme, helping nurses and health professionals begin their career as a clinical academic. Investing in the clinical academics of the future is vital to pioneering advances in cancer treatment and care, driving practice forward and improving outcomes for patients.

Clinical simulation training - which tests staff in common clinical scenarios in a safe, yet realistic, environment – has existed at The Royal Marsden for the last 10 years. Now, new funding from the grant will take this training to the next level, opening the programme up to more staff – particularly registrars and nurses – and introducing new programmes.

A big thank you



One of our young supporters taking part in the 2019 Banham Marsden March

All of us at The Royal Marsden Cancer Charity would like to thank everyone who has supported us over the last year.

Your unbelievable dedication and generosity enables us to support so many people with cancer so they can receive the very best care, benefit from the latest research or have treatment using the most advanced equipment.

We would especially like to thank the following supporters, as well as those who have chosen to remain anonymous.



The David Adams Leukaemia Appeal Fund

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Surrey Spring Show Team Strictly Come Walking

The Tennis Open for Royal Marsden

The Constance Travis Charitable Trust

Simon Watson The West End Office Agents Society

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Get in touch

Without the incredible generosity and passion of our dedicated supporters, The Royal Marsden would simply not be able to help so many cancer patients and their loved ones. But we cannot stand still. More and more people are diagnosed with cancer every year, and we must ensure that cancer patients everywhere can receive the latest and best treatment and care. Your support is now more important than ever.

There are so many ways you can help us continue to make a difference to the lives of those affected by cancer. Whether you choose to take part in an event, fundraise for us, make a donation, or leave a gift in your Will – your support, however big or small, has the potential to save lives.

Find out more

royalmarsden.org 020 7808 2233

Fundraise

royalmarsden.org/support 020 8770 0279

Volunteer

royalmarsden.org/volunteering 020 8661 3391

Donate

royalmarsden.org/donate 020 7808 2233

Gifts in Wills

royalmarsden.org/giftsinwills 020 7811 8032

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